

REMARKS**SUMMARY:**

The present application sets forth original claims 1-26, of which claims 1 and 14 are independent claims. Amendments are submitted and requested entry for claims 1 and 14. None of the amendments add any new matter to the subject application.

Original Claims 1, 2, 6, 11, 14, 15, 19 and 24 stand rejected under 35 U.S.C §102(b) as being allegedly anticipated by or, in the alternative, under 35 U.S.C §103(a) as obvious over U.S. Patent No. 6,087,930 (Kulka et al.) or U.S. Patent No. 5,731,754 (Lee, Jr. et al.). Original claims 3 and 16 stand rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Kulka et al. or Lee, Jr. et al. in view of U.S. Patent No. 6,474,380 (Rensel et al.). Original claims 4, 5, 7-10, 12, 13, 17, 18, 20-23, 25 and 26 stand rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Kulka et al. or Lee, Jr. et al. in view of U.S. Published Application No. 2004/0159383 (Adamson et al.).

Responses to the rejections summarized above are hereafter provided with respect to each individual argument presented by the Examiner.

REJECTION OF ORIGINAL CLAIMS 1, 2, 6, 11, 14, 15, 19 and 24 (35 U.S.C. §102(b) or 35 U.S.C. §103(a)):

Original Claims 1, 2, 6, 11, 14, 15, 19 and 24 stand rejected under 35 U.S.C §102(b) as being allegedly anticipated by or, in the alternative, under 35 U.S.C §103(a) as obvious over U.S. Patent No. 6,087,930 (Kulka et al.) or U.S. Patent No. 5,731,754 (Lee, Jr. et al.). Based on the following remarks, Applicants respectfully request reconsideration.

Before setting forth a discussion of the prior art applied in the recent First Office Action, it is believed that a general discussion of the disclosed subject matter may be helpful as background to a discussion of the specifically claimed subject matter.

In general, the present technology is directed toward methodologies for providing a mounting patch for mounting electronic assemblies to an inner portion of a tire.

Prior to the present disclosure, tire electronics mounting patches had provided support for a relatively heavy battery mounted together on a circuit board with the tire electronics. Such previous mounting structures needed to be physically robust and typically requiring a nut and bolt arrangement due primarily to the weight of the battery. The present technology provides for moving heavier elements (one or more batteries) at least partially into the mounting patch thereby providing a lower center of gravity than previous mounting arrangements while separately mounting the remainder of the tire electronics outside the cured rubber corresponding to the mounting patch.

With reference now in particular to the outstanding rejection of original claims 1, 2, 6, 11, 14, 15, 19 and 24 under 35 U.S.C §102(b) as being allegedly anticipated by or, in the alternative, under 35 U.S.C §103(a) as obvious over U.S. Patent No. 6,087,930 (Kulka et al.) or U.S. Patent No. 5,731,754 (Lee, Jr. et al.), it should first be noticed that claim 1 as presently presented is directed to “A method of making a mounting patch for mounting an electronic assembly to the inner liner of a pneumatic tire, ... comprising ... providing a power source ... coupling at least one pair of connecting terminals to the power source ... embedding the power source and at least a portion of at least one of the connecting terminals into a quantity of uncured rubber; and curing the uncured rubber by applying sufficient heat and pressure to the uncured rubber such that the power source and at least a portion of at least one of the connecting terminals are secured in the rubber, whereby an electric assembly may be coupled to the pair of connecting terminals outside the cured rubber.” Similarly, the only other independent claim, claim 14, as presently presented is directed to “A method of providing a pneumatic tire with a mounting patch for mounting a monitoring device for monitoring conditions of the pneumatic tire comprising the steps of ...providing a pneumatic tire ...

providing a power source ... coupling at least one pair of connecting terminals to the power source ... embedding the power source and at least a portion of at least one of the connecting terminals into a quantity of uncured rubber ... curing the uncured rubber by applying sufficient heat and pressure to the uncured rubber such that the power source and at least a portion of at least one of the connecting terminals are secured in the rubber ... and securing the cured rubber to the pneumatic tire."

Applicants respectfully submit that neither Kulka et al. nor Lee, Jr. et al. cited by the Examiner in support of the outstanding rejection provide directly or by obvious extension the particular aspects claimed. More particularly, while both Kulka et al. and Lee, Jr., et al. disclose tire sensor arrangements, neither disclose or make obvious a tire sensor arrangement wherein connecting terminals for the power source (battery) are extended at least partially outside the cured rubber securing the power source in such fashion as to permit use of the connection terminals as a connection point for the electronics after the power source and portions of the connection terminals have been secured in the cured rubber.

As may best be seen in Figures 1 and 2 of both Kulka et al. and Lee, Jr., et al., their battery power source is encased within a cured rubber housing along with the electronics. In addition to the aspects of the present invention discussed in Applicants' disclosure, the present configuration allows the electronics portion of the tire sensor to avoid the extreme temperature and pressure requirements of curing by permitting mounting of the electronics portion of the tire sensor after the completion of the curing process. Neither Kulka et al. nor Lee, Jr., et al. provide such capability.

REJECTION OF CLAIMS 3-5, 7-10, 12, 13, 16-18, 20-23, 25 and 26 (35 U.S.C. §103(a)):

With respect to claims 3-5, 7-10, 12-13, 16-18, 20-23, 25 and 26: Based on the arguments presented above with respect to presently submitted claims 1 and 14, Applicants submit that such claims should be allowed over any combination of Kulka et

al., Lee, Jr., et al., Rensel et al. and Adamson et al.. Since claims 3-5, 7-10, 12-13, 16-18, 20-23, 25 and 26 variously depend from otherwise allowable claims 1 or 14 and further limit same, claims 3-5, 7-10, 12-13, 16-18, 20-23, 25 and 26 should also be allowed. Acknowledgement of the same is earnestly solicited.

CONCLUSION:

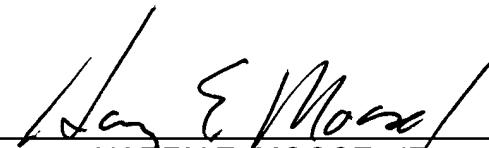
Inasmuch as all outstanding issues have been addressed, it is respectfully submitted that the present application, including claims 1-26, is in complete condition for issuance of a formal Notice of Allowance, an action to such effect is earnestly solicited. The Examiner is invited to telephone the undersigned at his convenience should only minor issues remain after consideration of this response in order to permit early resolution of the same or if he has any questions regarding this matter.

Respectfully submitted,

DORITY & MANNING,
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